Claims

[c1]   1. A method of controlling data outputted from a pe-
ripheral device, the peripheral device being installed on a
computer system, the peripheral device comprising a bus
interface circuit and a controller, the bus interface circuit
being electrically connected to a bus of the computer
system for controlling data transmission between the
peripheral device and the bus, the controller being elec-
trically connected to the bus interface circuit, the method
comprising:
positioning at least a first storage block and a second
storage block in the bus interface circuit;
storing data outputted from the controller in the first
storage block;
utilizing the bus interface circuit for simultaneously con-
trolling the first storage block to transfer data stored in
the first storage block to the bus and controlling the
second storage block to store data outputted from the
controller; and
utilizing the bus interface circuit to control the second
storage block to transfer data stored in the second stor-
age block to the bus.

[c2]   2. The method of claim 1 further comprising:
while the second storage block outputs data to the bus, inputting data outputted from the controller into the first storage block.

[c3]   3. The method of claim 1 wherein a timing when the second storage block is full is prior to a timing when the first storage block completely outputs data stored in the first storage block.

[c4]   4. The method of claim 1 further comprising:
before data stored in the first storage block are completely outputted to the bus, blocking the controller from transferring data to the bus interface circuit if the second storage block is full.

[c5]   5. The method of claim 1 further comprising:
positioning a third storage block in the bus interface circuit; and
before data stored in the first storage block are completely outputted to the bus, blocking the controller from transferring data to the bus interface circuit if the second and third storage blocks are full.

[c6]   6. The method of claim 1 wherein a capacity of the first storage block is equal to a capacity of the second storage block.

[c7]   7. The method of claim 1 wherein the bus is a PCI bus or a PCIX bus.

[c8]   8. The method of claim 1 wherein the peripheral device is a data-retrieving device.

[c9]   9. The method of claim 8 wherein the data-retrieving device is a network card, a hard-disk drive, or an optical disk drive.

[c10]   10. The method of claim 1 wherein the first and second storage blocks operate according to a first-in-first-out (FIFO) storage mechanism.

[c11]   11. A computer system comprising:
a bus;
a peripheral device comprising a bus interface circuit electrically connected to the bus, the bus interface circuit having at least a first storage block and a second storage block; and
a controller electrically connected to the bus interface circuit for simultaneously controlling the first storage block to transfer data stored in the first storage block to the bus and for controlling the second storage block to store data outputted from the controller.

[c12]   12. The computer system of claim 11 wherein the bus

interface circuit further comprises:

a first switch electrically connected to the bus, the first storage block, and the second storage block for selectively connecting the bus with either the first storage block or the second storage block; and

a second switch electrically connected to the bus, the first storage block, and the second storage block for selectively connecting the controller with either the first storage block or the second storage block.

[c13]   13. The computer system of claim 11 wherein a timing when the second storage block is full is prior to a timing when the first storage block completely outputs data stored in the first storage block.

[c14]   14. The computer system of claim 11 wherein a capacity of the first storage block is equal to a capacity of the second storage block.

[c15]   15. The computer system of claim 11 wherein the bus is a PCI bus or a PCIX bus.

[c16]   16. The computer system of claim 11 wherein the peripheral device is a data-retrieving device.

[c17]   17. The computer system of claim 16 wherein the data-retrieving device is a network card, a hard-disk drive, or an optical disk drive.

[c18]   18. The computer system of claim 11 wherein the first and second storage blocks operate according to a first-in-first-out (FIFO) storage mechanism.

[c19]   19. A method of controlling data outputted from a peripheral device, the peripheral device being installed on a computer system, the method comprising:

transferring a source data, whose size is greater than a storage capacity of the peripheral device, to the peripheral device; and

while the peripheral device outputs the source data to a bus of the computer system, utilizing the peripheral device to receive the source data simultaneously;

wherein the peripheral device continuously occupies the bus until the source data are fully outputted to the bus.

[c20]   20. The method of claim 19 wherein the source data is inputted into a first storage block and a second storage block of the peripheral device.

[c21]   21. The method of claim 20 wherein the source data is inputted into the first storage block first, and then the source data is inputted into the second storage block after the first storage block is full.

[c22]   22. The method of claim 21 wherein when the source data is inputted into the second storage block, the

source data stored in the first storage block is outputted to the bus simultaneously.

[c23] 23. The method of claim 22 further comprising:
positioning a third storage block in the peripheral device; and
before the source data stored in the first storage block are completely outputted to the bus, blocking the second and third storage blocks from receiving the source data if the second and third storage blocks are full.

[c24] 24. The method of claim 21 wherein a timing when the second storage block is full is prior to a timing when the first storage block completely outputs the source data stored in the first storage block.

[c25] 25. The method of claim 20 further comprising:
before the source data stored in the first storage block are completely outputted to the bus, blocking the second storage block from receiving the source data if the second storage block is full.

[c26] 26. The method of claim 19 wherein a capacity of the first storage block is equal to a capacity of the second storage block.

[c27] 27. The method of claim 19 wherein the bus is a PCI bus or a PCIX bus.

[c28]   28. The method of claim 19 wherein the peripheral device is a data-retrieving device.

[c29]   29. The method of claim 28 wherein the data-retrieving device is a network card, a hard-disk drive, or an optical disk drive.